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ABSTRACT

University supervisors' evaluations of student teachers were assessed to determine if the cognitive attainment of pupils taught by the student teachers was a rating factor. The sample consisted of 82 secondary level student teachers participating in a competency based teacher education program. Data collected for the study included a summary evaluation instrument, developed by the student teachers, to ascertain their pupils' academic achievement levels. The student teacher supervisors recorded their ratings of student teachers' instructional effectiveness on an evaluation profile scale consisting of 20 instructional skills and eight personal competencies. Final ratings were obtained from a three-way conference among the student teacher, the university supervisor, and the cooperating teacher. Only four of the 28 ratings areas were found to relate significantly to learner achievement: (1) developing lesson plans; (2) using different levels of classroom questions; (3) performance while student teaching two-week units; and (4) personal energy level. These findings have implications for student teacher evaluation procedures, since they refute the assumption that high student teacher ratings by their supervisors is related to high learner achievement. (FG)

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Relations Among Final Supervisor Skill Ratings of Student Teachers and Cognitive Attainment Values of Learners Taught by Student Teachers

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Relations Among Final Supervisor Skill Ratings of Student Teachers and Cognitive Attainment Values of Learners Taught by Student Teachers

Assessing the teaching skills of teaching candidates is a perennial topic addressed in conferences and journals of education. Countless approaches for assessing student teachers have been developed, implemented and reported. (Henry, Beasley, 1972; Kay, 1978; Medley, 1978; Tikunoff, Ward, 1978) Nearly a decade ago, Weber (1974) identified two major positions evolving from the Competency Based Teacher Education (CBTE) movement regarding student teacher assessment. These included procedures which examine the instructional skills of teaching candidates on the one hand, and techniques for collecting learner achievement (consequence criteria) information on the other. For the past several years efforts have been directed to the consequence approach of student teacher assessment in our laboratory. A number of these inquiries have examined the potential of assessing the competence of student teachers on the basis of cognitive attainment demonstrated by their learners (Denton, 1979, 1980; Denton, Norris, 1980, 1981; Denton, Mabry, 1981; Denton, Tooke, 1981). A number of these papers have reported modest relations between general teaching skill assessments of student teachers and cognitive attainment values of learners of the student teachers. In these reports, general teaching skill assessment was operationally defined as the sum of supervisor ratings of the student teacher over several instructional skills. Reflecting on these efforts, we realized the importance of examining the relation of each instructional skill rating to learner cognitive attainment. Thus, the inquiry was undertaken to answer the following research question:

ARE COGNITIVE ATTAINMENT DATA FROM LEARNERS TAUGHT BY STUDENT TEACHERS RELATED TO FINAL INDIVIDUAL TEACHING SKILL RATINGS BY THOSE WHO SUPERVISED THE STUDENT TEACHERS?

ORGANIZATION OF INVESTIGATION

Program Description

This investigation was conducted in the educational curriculum and instruction department at Texas A&M University. The teacher preparation program being examined in the ivestigation is a competency based program for secondary level teachers fashioned around a diagnostic-prescriptive model of instruction (Armstrong, Denton, Savage, 1978). This model conceptualizes teaching as a series of events requiring five distinct sets of instructional skills, that is: Specifying Perfomance Objectives, Diagnosing Learners, Selecting Instructional Strategies, Interacting with Learners, and Evaluating the Effectiveness of Instruction.

A full semsester-full day student teaching program with twelve semester hours being awarded for successful completion of the course is the culminating experience in this preparation program. During this experience, each student teacher is required to develop and implement two instructional units each of approximately two weeks duration. The instructional units are to include: performance objectives, and diagnostic pretest to determine whether prerequisite knowledges and skills are present, instructional strategies addressed to each performance objective, and criterion-referenced instruments. These units must be deemed acceptable and appropriate by both the classroom supervising teacher and the university supervisor prior to implementation. Some time ago, a multistage evaluation system was established to monitor the development and implementation of this competency based program (Denton, 1977). Evaluation of student teachers in this system includes supervisor ratings based on in-class observations and ratings of instructional materials produced by the student teacher. Generally, six supervisor ratings are completed during a semester. These ratings are recorded on an Evaluation Profile instrument. It may be of significance that the final evaluation for each student teacher recorded on this instrument represents a consensus rating resulting from a three-way conference between the student teacher, classroom supervisor and university supervisor. In addition, a Curriculum Context Checklist for rating the components of each instructional unit is completed by the university supervisor.

Student teachers are also requested to contribute to the formative evaluation process by completing weekly reflection sheets throughout the semester.

Further, summative procedures are conducted by student teachers at the conclusion of each unit, where summaries of learners' performances are recorded on Summary Evaluation of Unit Forms. These self-evaluation experiences are consistent with the final component of the diagnostic-prescriptive model of instruction.

Only one type of data was collected for this investigation which ordinarily is not collected during student teaching, that being, criterion referenced learner attainment data. In this investigation, student teachers retained the unit test responses of learners after providing feedback to the learners regarding their performance. These data were subsequently used to develop a criterion-referenced summary on each learner. This summary is a record of each learner regarding his/her individual performance with respect to each performance objective included in the unit. In addition, pretest and post-test scores were recorded for each learner on the summary. The objective attainment data expressed as the percentage of objectives attained in unit two for each learner have served as the dependent variable in this investigation.

Sample:

Data from 82 secondary level student teachers and 9001 learners taught by the student teachers comprised the total sample for this inquiry. The unit of analysis for this array of data was the student teacher. The student teachers were supervised by five university supervisors over the course of five semesters (Spring '78 through Spring '80). The university supervisors during this period had prior experience as supervisors ranging from one semester to three years. Due to this experience, these supervisors have established themselves professionally among classroom supervisors and building administrators with whom they worked. Further, each supervisor was well versed on the diagnostic-prescriptive model of instruction on which the preparation program and corresponding 28 item evaluation profile (rating scale) were based.

Instrumentation:

While a variety of scales and criterion-referenced instruments were used to obtain measures of independent and dependent variables for program evaluation purposes, data requirements for this inquiry were met by the summary

evaluation of unit and evaluation profile forms. The summary evaluation form requires an estimate of the achievement level and socio-economic level of the learners in addition to the actual number of class periods required to teach the unit. Perhaps the most significant information collected among all data is recorded on this form by the student teacher; this data being achievement information (learner attainment of individual unit objectives, pretest scores, and unit post-test scores). Criterion-referenced tests developed by the student teacher are used to provide these learner attainment data. An evaluation strategy developed by McNeil and Popham (1973) provided guidelines for accomplishing this task without disrupting the instructional program of the host school of the student teaching program. Additional discussion of this procedure is provided elsewhere (Denton, Norris, 1981).

The evaluation profile scale was used to record the supervisor ratings of the instructional effectiveness of the student teacher. The scale consists of twenty-eight Likert type items divided into two categories, that is, instructional skills, (20 items) and personal characteristics (8 items). Ratings to each item range from excellent to inadequate. An alpha co-efficient of .94 determined for this instrument suggests a high degree of internal consistency among items on the scale.

Collecting Data:

Final ratings of the student teacher on the evaluation profile were consensus ratings recorded during a three-way conference among the student teacher, classroom supervisor and university supervisor. In addition, cognitive attainment data on each learner were recorded by the student teacher. These cognitive data were collected at the conclusion of the second instructional unit taught by the student teachers. While the cognitive data of learners included many variables, the sum of unit two objectives attained by the learners became the cognitive attainment variable of interest.

RESULTS AND DISCUSSION

Zero order correlations were calculated between the average number of objectives achieved by learners of the student teacher with individual consensus ratings in the evaluation profile of that student teacher. Table 1 presents the results of those calculations.

[place Table 1 about here]

Supervisor ratings of student teachers which relate to learner attainment were found to be ratings of student teachers' ability to; develop lesson plans ($r=.19$, $p=.05$), use different levels of classroom questions ($r=.16$, $p=.08$), and the overall rating of performance while teaching two week units ($r= -.18$, $p= .06$). One rating among the personal characteristics of student teachers, i.e. the energy, was found to relate to learner cognitive attainment modestly ($r=.15$, $p=.10$).

Because only 4 of 28 supervisor ratings were found to relate modestly to cognitive attainment values of learners, a negative response appears appropriate for the research question of this inquiry. However, it does appear that those teaching skills, which correlate with learner attainment are directly observable, while the global rating which was more inferential, yielded a negative correlation.

It is somewhat disappointing that the primary evaluation procedure currently used in our student teaching program yields so few items that relate modestly to cognitive growth of learners. No doubt the supervisor ratings represent processes of teaching, while the cognitive attainment scores are instances of products of teaching. Yet our evaluation procedures, which place so much weight on the supervisory ratings, assume that the instructional processes on the scale are related to learner attainment or products of instruction. In other words, if a student teacher is rated highly across the twenty instructional skills, then that candidate's learners is expected to achieve high scores. Conversely, if the student teacher fails to demonstrate excellent facility with various instructional skills on the scale, then the learners, likely, will not be quite as successful. The values produced in this inquiry tend to refute this assumption. Possible explanations for this finding include a litany of

psychometric concerns associated with the variables under consideration as well as the objectivity of evaluating a colleague and protege, with the future of the student teacher, at stake.

It is quite reasonable, that so much effort and growth have occurred during the student teaching experience, that the scale value represents a rating of perseverence and improvement rather than demonstrated performance. Whatever the reasons the outcomes of this inquiry do suggest that multiple sources of information be used to certify the competence of a teaching candidate rather than relying solely on supervisor ratings.

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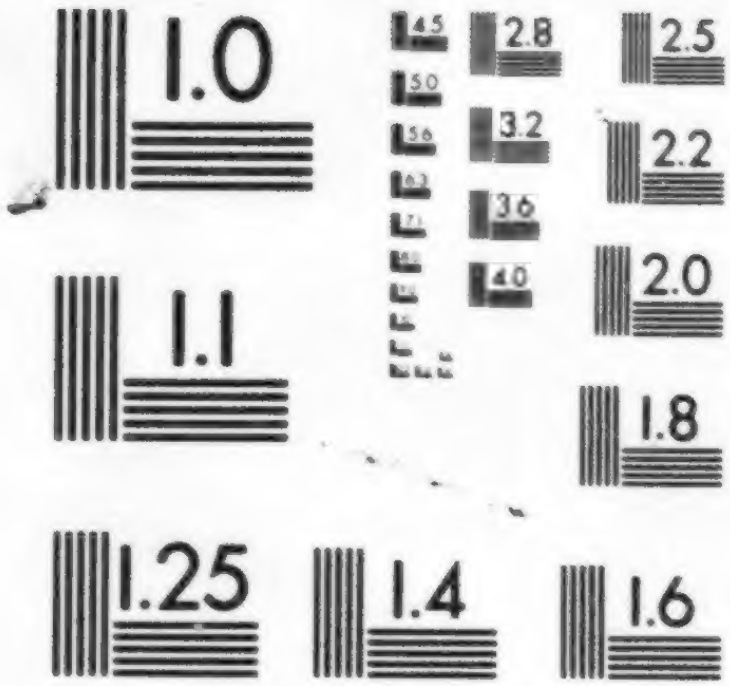
Table 1

Correlations Between Ratings of Student Teachers, and Cognitive Attainment of Learners Taught by Student Teachers.

Instructional Skills

Instructional Skill Label	Zero Order Correlation	*Significance Level	Instructional Skill	Zero Order Correlation	*Significance Level
Lesson plan development	.19	.05	Attending behavior exhibited	.13	N.S.
Use of Per. objectives	.04	N.S.	Clarity of directions	-.13	N.S.
Diagnostics used	-.12	N.S.	Questioning strategies exhibited	.16	.08
Remediation used	-.12	N.S.	Reinforcing techniques exhibited	.13	N.S.
Content mastery exhibited	.01	N.S.	Clarifying values exhibited	-.07	N.S.
Use of duplicating equipment	.10	N.S.	Classroom management techniques	-.08	N.S.
Use of Audio-Visual equipment	-.04	N.S.	Test-construction	-.05	N.S.
Introducing and concluding lessons	-.02	N.S.	Program evaluation techniques exhibited	.08	N.S.
Appropriateness of inst. method	-.01	N.S.	Self-evaluation exhibited	.00	N.S.
Variety of stimuli used	-.03	N.S.	Teaching a unit	-.18	.06
Personal Characteristics					
Role Model	-.07	N.S.	Responsibility	-.07	N.S.
Promptness	.06	N.S.	Personal Grooming	.00	N.S.
Cooperation	.00	N.S.	Acceptance of school norms	.00	N.S.
Energy	.15	.09	Concern for school	.09	N.S.



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